**Unit 3 Outcome One: Multiple Choice Questions (1 mark each)**

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| 1 | Classifying individual data items into groups based on the characteristics of the data is known as identifying the |
|  | 1. Data type 2. Data value 3. Data structure 4. Source of data |
| 2 | Which data type would be most appropriate for a field called “Account Paid?” where the possible responses are “Yes” or “No”? |
|  | 1. text 2. Boolean 3. string 4. alphanumeric |
| 3 | An effective validation technique in a database is evident when |
|  | 1. All data is reasonable 2. All reports are accurate 3. Records are sorted reasonably 4. Calculated fields return correct answers |
| 4 | Bobby is updating a company’s relational database so that the details of any customer who has not purchased anything since 2015 are removed from the customer table and archived.  The design for the query criteria would be |
|  | 1. DateLastPurchase <= Today -2 2. DateLastPurchase > 31/12/2015 3. DateLastPurchase < 01/01/2016 4. DateLastPurchase <= 01/01/2016 |
| 5 | Which of the following is likely to be an advantage of using a relational database? |
|  | 1. Multiple tables are linked together via common fields 2. Specialised database management software is required 3. Changes in the structure of the database can be complex 4. It is simpler to use than a flat file database |
| 6 | Which design tool would be best suited to showing the functionality of a database? |
|  | 1. Style sheet 2. Site map 3. Entity relationship diagram 4. storyboard |
| 7 | Which one of the following activities is **not** part of the development stage of the problem-solving methodology? |
|  | 1. Manipulating objects 2. Creating user documentation 3. Testing for functionality 4. Specifying evaluation criteria |
| 8 | Examples of design tools to represent the output of an RDBMS would include |
|  | 1. Sitemap and layout diagram 2. Page mock-up and user flow diagram 3. Flow chart and ERD 4. Storyboard and layout diagram |
| 9 | The electronic validation technique that checks whether a piece of data is between two values (an upper and lower value) is known as a |
|  | 1. Existence check 2. Value check 3. Range check 4. Points check |
| 10 | Bank customers can have a car loan if they have at least $5,000 in savings or if they are employed and not paying rent. If S is savings, E is employment and R is rent, the design for a query to check if a customer can have a loan is |
|  | 1. S>=5000 and (E or R) 2. S>5000 and E or not R 3. S>=5000 or (E and R) 4. S>=5000 or (E and not R) |
| 11 | The best conventions for a financial report include |
|  | 1. Titles, column headings, right-aligned text 2. Titles, left-aligned text and bold for date 3. Column headings, left-aligned numeric data and date 4. Right-aligned numeric data, date and bold for totals |
| 12 | During which stage of the problem-solving methodology are criteria determined for evaluating the extent to which a solution meets an organisation’s needs? |
|  | 1. Design 2. Analysis 3. Evaluation 4. development |
| 13 | A field that uniquely identifies each record in a database table is known as: |
|  | 1. A one-to-many relationship 2. Secondary key 3. Primary key 4. Customer code |
| 14 | To evaluate the efficiency of a new online sales form, an organisation could monitor |
|  | 1. Errors in delivery address details recorded 2. Incomplete records added to the customer data file 3. Savings in the costs associated with recording customer data 4. The number of orders accepted when stock is no longer available |
| 15 | Which one of the following statements can be used to design a search for red powerboats owned by a person possibly called Smith or Summers? |
|  | 1. (PowerBoatColour = red OR LastName = Smith) OR LastName = Summers 2. PowerBoatColour = red OR (LastName = Smith AND LastName = Summers) 3. PowerBoatColour = red AND( LastName = Smith OR LastName = Summers) 4. (PowerBoatColour = red AND LastName = Smith) AND LastName = Summers |
| 16 | The role of a script when using a database is: |
|  | 1. To make sure steps are done in the correct order 2. To replace macros 3. To improve efficiency by automating certain procedures 4. Turns results of a query into useable information |
| 17 | Selling products to customers online will improve efficiency for a business because |
|  | 1. Price changes can be updated quickly and overhead costs reduced 2. Direct data entry by customers will reduce delivery address errors 3. Order totals will be more accurate as they are calculated automatically 4. Complete product details can be displayed clearly and images can be used to enhance appearance |
| 18 | An appropriate file name for a data file that holds all wages details for a business for the month of September 2016 would be |
|  | 1. Wages for September 2016 2. 2016SeptWagesDetails 3. WagesSept2016 4. Wages 9/16 |
| 19 | A one-to-many relationship refers to when: |
|  | 1. There is only one unique identifier 2. The contents of the field can appear only once in one table but more than once in another 3. When the primary key is the unique identifier 4. Would occur in an athletics program because more than one athlete can be in an event |
| 20 | Which one of the following data sets would best test the sort function of listing suburbs in ascending order |
|  | 1. There is only one unique identifier 2. The contents of the field can appear only once in one table but more than once in another 3. When the primary key is the unique identifier 4. Would occur in an athletics program because more than one athlete can be in an event |
|  |  |

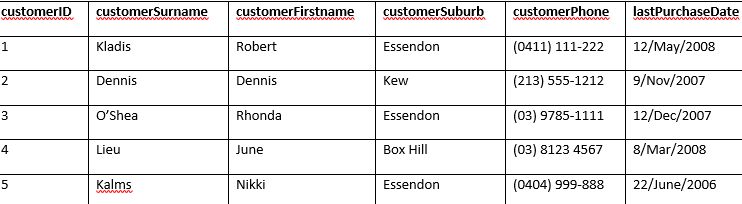
*Use the following information to answer Questions 21 & 22*

The table below is used to calculate the discount for travel agency staff when they go on holiday.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **StaffID** | **StaffLastName** | **StaffFirstName** | **YearsOfService** | **NormalHolidayCost** |
| 345 | Jones | Barry | 4 | 699 |
| 346 | Costa | Steph | 12 | 1476 |
| 347 | Chen | Sam | 8 | 801 |

|  |  |
| --- | --- |
| 21 | Which one of the following query designs will return the discount if all staff get a base $50 discount and a further 2% off the NormalHolidayCost for each year of service? |
|  | 1. Discount = [NormalHolidayCost]\*0.02 + [YearsOfService] + 50 2. Discount = 50 + [YearsOfService]\*[NormalHolidayCost]\*0.02 3. Discount = [YearsOfService]\*50 + [NormalHolidayCost]\*0.02 4. Discount = 50 + [YearsOfService]\*0.02 + [NormalHolidayCost] |
| 22 | The manager wants to add a calculated field called StaffDiscount to the data table design because he believes it will make the database more effective.  The calculated field |
|  | 1. Should be included because it will make it easier for users to read the data table 2. Should not be included because it introduces redundant data into the system 3. Should not be included because it would make it harder for users to read the table 4. Should be included because it allows the manager to sort the field and quickly identify who gets the highest discount |
| 23 | The stage of the problem-solving methodology where the solution requirements are determined is |
|  | 1. Design 2. Analysis 3. Evaluation 4. development |
| 24 | The best electronic validation technique for ensuring that an online data entry form is complete is |
|  | 1. a data type check 2. a data range check 3. a required field check 4. graphic image recognition |
| 25 | A relational database management system (RDBMS) developer is creating a new table within a database. The most efficient name and data type for a field containing phone number, such as (03) 456 5667, is |
|  | 1. name: cpn, data type: number 2. name: CustPn#, data type: text 3. name: CustPhNum, data type: number 4. name: customer phone number, data type: number |
| 26 | A farmer has hired you to develop a new stock management solution. During development, to ensure that the new solution does what it is intended to do, you should |
|  | 1. enter a lot of data to make sure the stock numbers are correct 2. read the quick start guide to make sure it is logical and efficient 3. create a set of evaluation criteria to judge if the requirements were met 4. check the system in three to six months to make sure it is working as intended |
| 27 | Drivers are insured for mountain track driving if they pass a special driving course (SDC), have a car with roll bars (RB) and are without any convictions (C) for dangerous driving.  The design query to identify drivers who can receive insurance is |
|  | 1. Insured = SDC or RB and C 2. Insured = SDC and RB and C 3. Insured = SDC or RB and not C 4. Insured = SDC and RB and not C |
| 28 | A text box on a data entry form has this validation rule applied to it: 2999 < Postcode < 4000. The most suitable data to test the rule is |
|  | 1. 3336, 3337, 3999 2. 2050, 3050, 4050 3. 2999, 4000, 4001 4. 3000, 3999, 4050 |
| 29 | A solution developer wants to test the efficiency of using the date convention of mm/dd/yyyy for an online sales form to be used in a global market. He tracks the results of 100 users who were required to enter the current data using this convention.  The best measure to indicate the efficiency of using this convention is |
|  | 1. How quickly each user enters the data 2. The percentage of users who enter complete dates 3. The number of users who accurately enter the current date 4. The number of error messages received by users to indicate incorrect date order |
| 30 | New employees use photocopy USER IDENTITIES from 999 to 1999. Test data to display an “INVALID USER IDENTITY” message would be |
|  | 1. 998 and 2000 2. 1000 and 1998 3. 999 and 1999 4. 999 and 1998 |

Use the following information to answer question 31, 32, 33



Question 31

What is the most appropriate data type to store lastPurchaseDate?

**A.** Integer

**B.** String  
**C.** Date

**D.** Double

**Question 32**

Which customer ID(s) would be returned if the query below were entered?

lastPurchaseDate BETWEEN #1-1-07# AND #31-12-07# AND customerSuburb = ‘Essendon’

**A.** 2, 3  
**B.** 1, 3, 5  
**C.** 3

**D.**1, 2, 3, 5

**Question 33**

What data type would be the best choice for customerPhone?

**A.** Integer  
**B.** Char  
**C.** Double  
**D.** String

Question 34



When the data in Table 1 is sorted in ascending order by **Author Surname**, **Author First Name** and then **Year**,

the order of the records changes to

**A.** 1, 2, 5, 6, 7, 4, 3

**B.** 6, 7, 5, 2, 1, 3, 4

**C.** 7, 6, 1, 2, 5, 4, 3

**D.** 4, 7, 1, 6, 2 ,5, 3

**Question 35**

The following query is applied to the data in Table 1.

Author Surname begins with ‘C’ and Year > 2000

This query will result in the following records being displayed.

**A.** 1, 6, 7

**B.** 1, 7

**C.** 2, 5, 3

**D.** 2, 5

**Question 36**

A flat file database contains

**A.** 0 tables.

**B.** 1 table.

**C.** 2 tables.

**D.** 3 tables.

**Question 37**

A relationship in a database file is

**A.** a row in a table.

**B.** a column in a table.

**C.** a link between two files.

**D.** a link between two tables.